

US Army Corps  
of Engineers

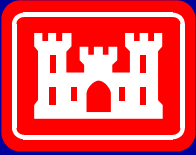
# ***US Army Engineering & Support Center, Huntsville***

## ***OE Innovative Technology***

***18 Dec 01***

Innovative Technology Manager

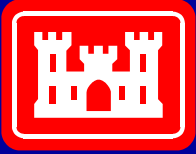
256-896-1629



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# Overview of Program

- Funded by mainly by HQUSACE (FUDS/BRAC) and ESTCP for OE technology demonstration and transition
- Our goal is to transition effective OE technologies to active projects

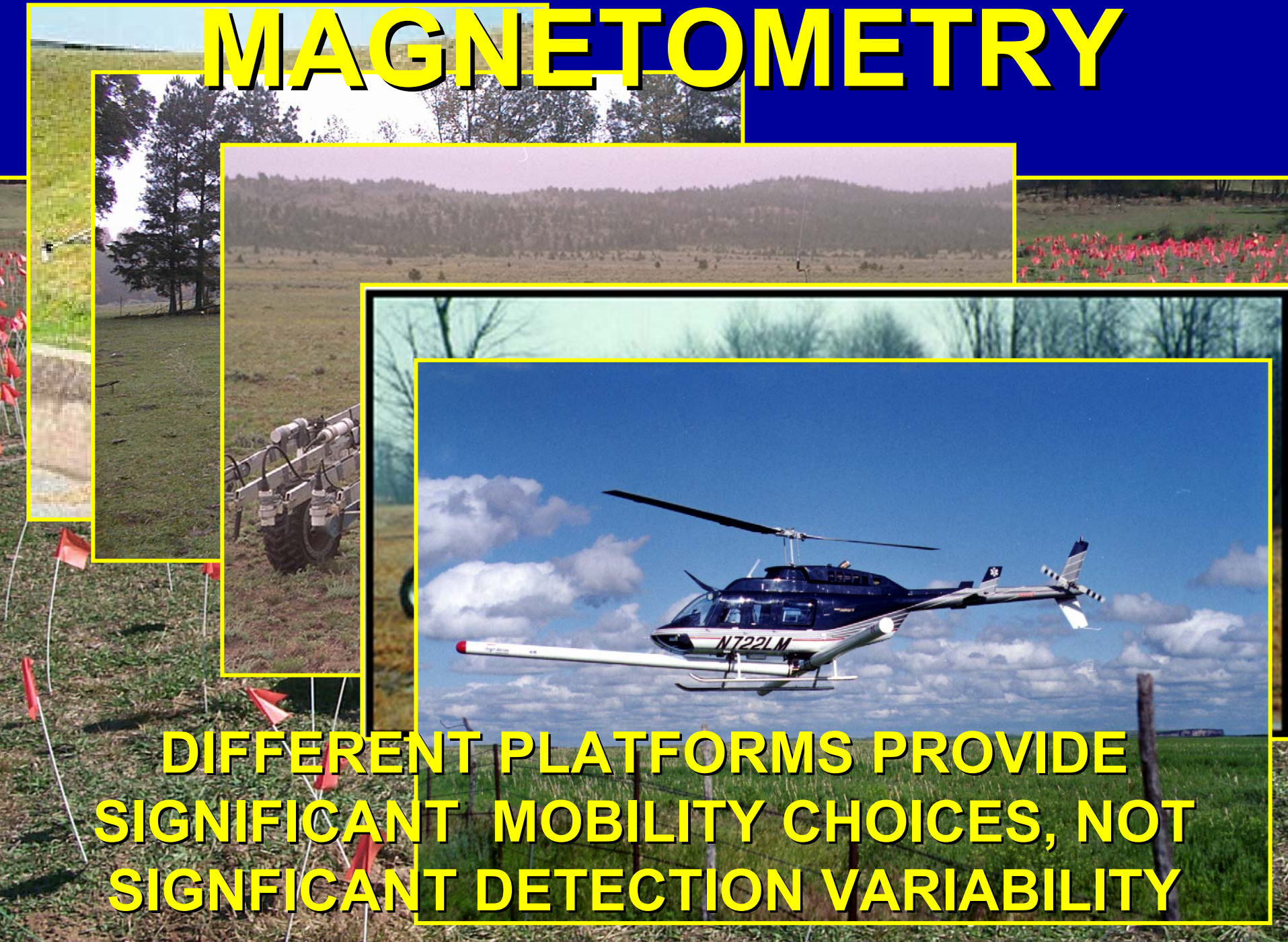


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# Army UXO R&D Focus

- Site Characterization
- Geophysical Discrimination Processes
- Sensor Design & Enhancement
- Hand-Held UXO Detector
- Data Acquisition, Analysis & Visualization
- Navigation & Positioning

# MAGNETOMETRY

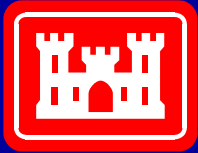


**DIFFERENT PLATFORMS PROVIDE  
SIGNIFICANT MOBILITY CHOICES, NOT  
SIGNIFICANT DETECTION VARIABILITY**



# ELECTROMAGNETIC INDUCTION



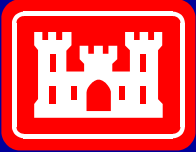


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# Airborne Geophysics



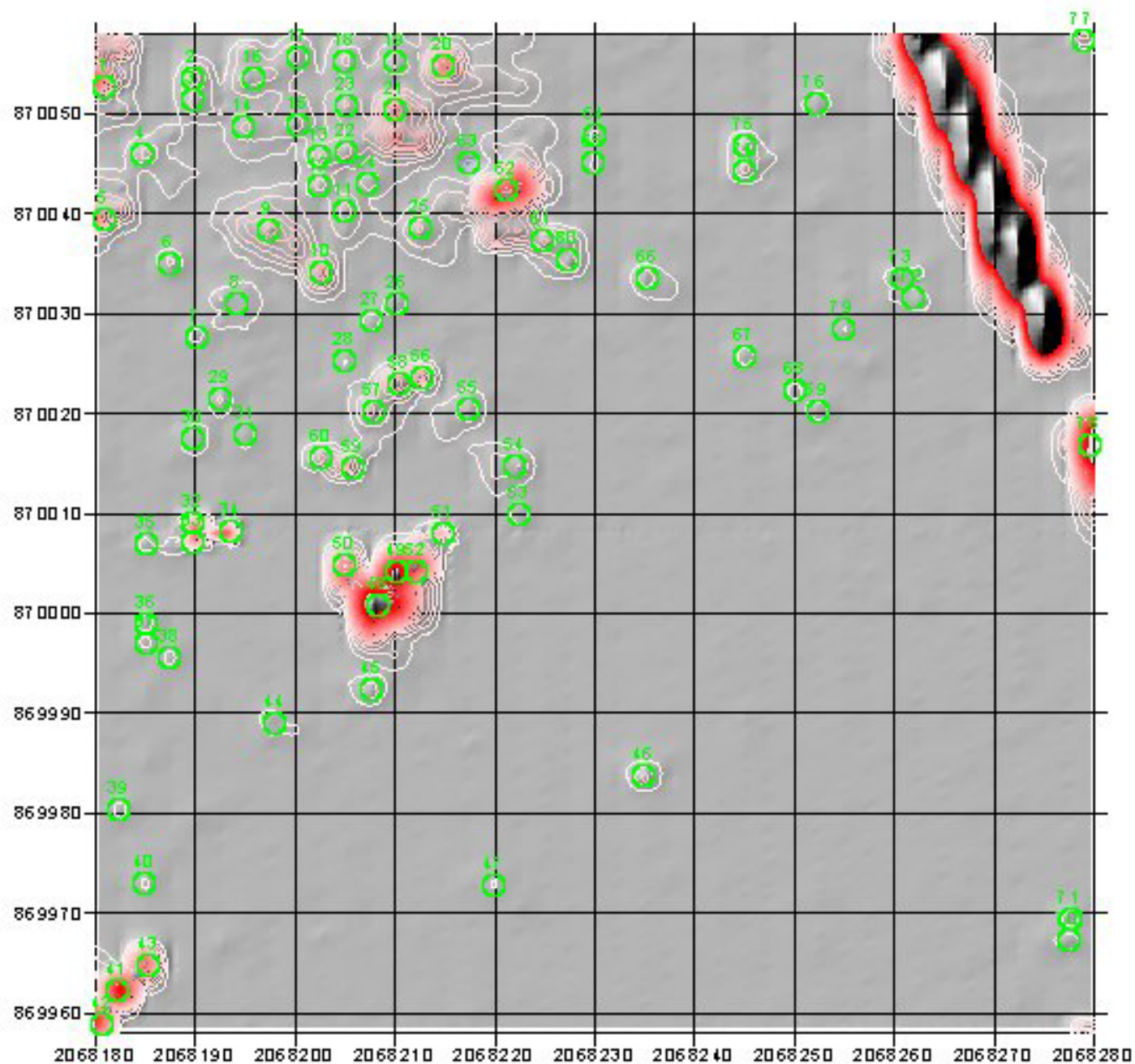




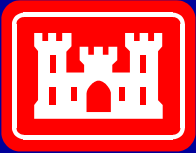
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# Multi-Sensor Arrays





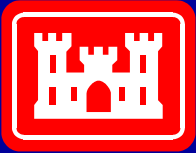




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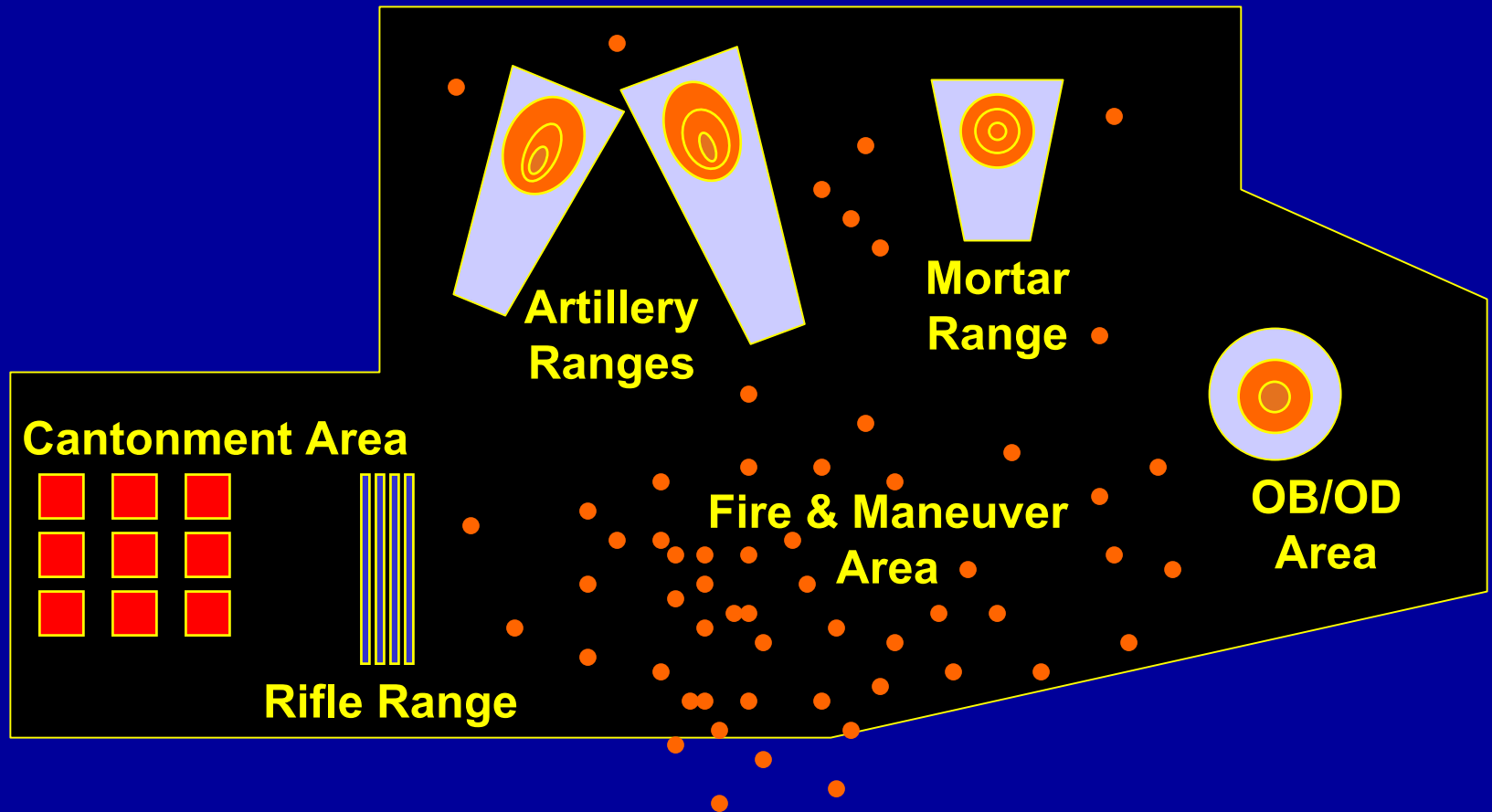
# Precision Navigation

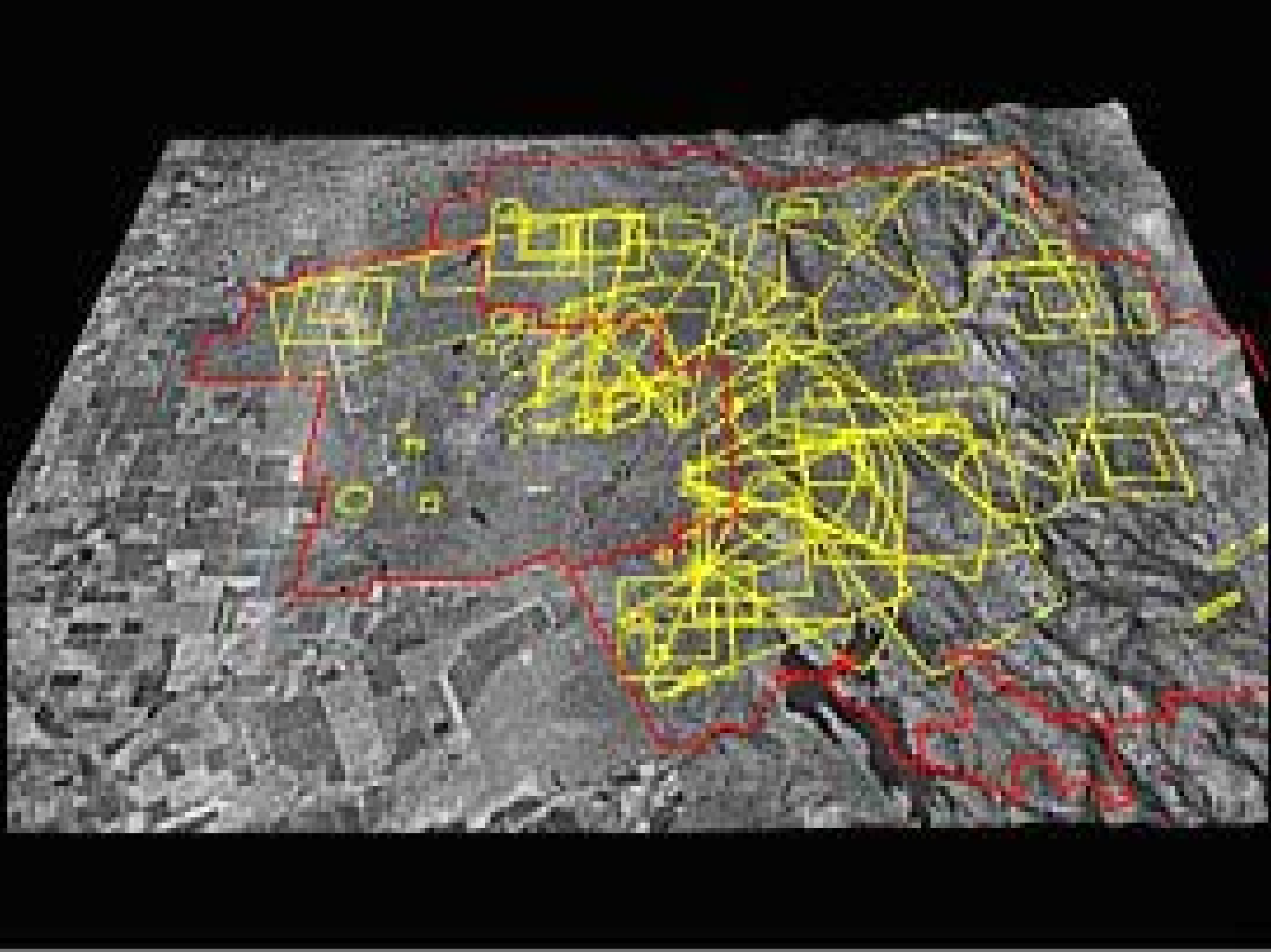




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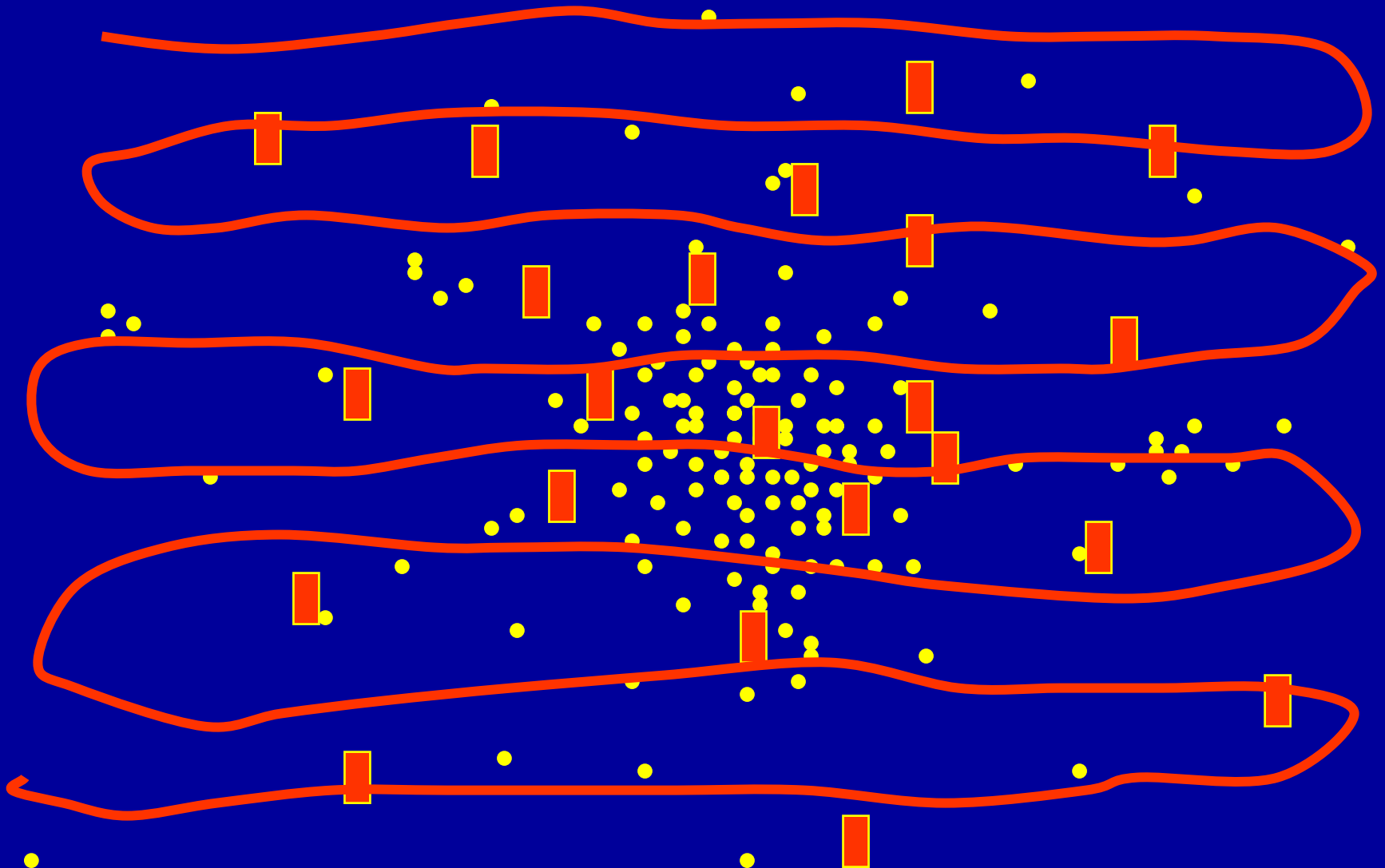
# Statistical Characterization

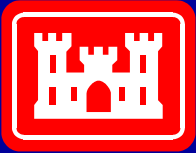






# Where's the Boundary?



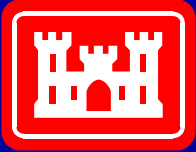


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# Munitions Fill Analysis



Advanced Non-Destructive Evaluation (ANDE) System



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# Remote Access & Destruction

## *GATOR LASER*





# ***Characterization of Explosives Residues at Military Firing Ranges***

ERDC TR-01-5

Engineer Research and  
Development Center



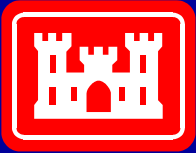
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Engineer Research and  
Development Center

## **Characterization of Explosives Contamination at Military Firing Ranges**

Thomas F. Jenkins, Judith C. Pennington, Thomas A. Ranney,  
Thomas E. Berry Jr., Paul H. Miyares, Marianne E. Walsh,  
Alan D. Hewitt, Nancy M. Perron, Louise V. Parker, Charlotte A. Hayes,  
and Eric G. Wahlgren

July 2001





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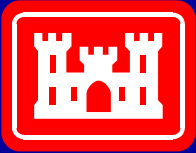
# Mobile Blast Chambers



Demil International Blast Chamber

Chemical munition for destruction





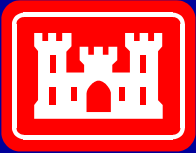
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# Mechanized Removal Equipment



*CEHNC issued final report, “Mechanized UXO Removal Equipment” dtd Aug. 2001, that evaluates currently available equipment*





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# QUESTIONS?